

REMARKS

Applicant's invention embodiments relate to an apparatus for pressure conditioning, expanding and defibrating tobacco material. In order to do so, Applicant's embodiments employ pressure differential cellular wheel sluices which are structured to be pressure proofed up to a pressure burden of at least 11 bars (approximately 160 p.s.i.g.) at the entrance and exit of a hyperbaric pressure chamber. While pressure differential cellular wheel sluices are known in the art, see for example U.S. Patent Nos. 3,612,066 and 5,341,966, there is no teaching, suggestion or motivation in the prior art to combine them in an apparatus such as taught by this application, which can pressure condition, expand and defibrate tobacco materials.

The Examiner has cited *Junemann et al.* (U.S. Patent No. 5,792,353) under 35 U.S.C. § 102(b) as anticipating the embodiments of the present invention. *Junemann et al.* discloses an apparatus designed for a wholly different process than the embodiments of the invention, namely for the denitration of tobacco stem material by passage through a water bath. The embodiments of the invention thus differ markedly in construction, from that disclosed by *Junemann et al.* In particular *Junemann et al.* employs conventional pressure tight locks at the entrance and exit of his apparatus, which are sufficient to maintain an absolute pressure of only about 1.5 bar to about 3.0 bar, far below the pressures which Applicant achieves by the use of pressure differential cellular wheel sluices, which by their construction can withstand pressures of at least 11 bars. There is no disclosure or suggestion in *Junemann et al.* of the incorporation of pressure differential cellular wheel sluices in an apparatus as disclosed and claimed by Applicant for its embodiments.

Additionally, Applicant's Claims 37 and 44 set forth a conveyance screw structure having a progressive pitch structure in the direction of the exit of the apparatus. The Examiner has apparently mis-read the term progressive pitch to mean the conveyance screw is inclined. In actuality, the term "progressive pitch" is known in the art to define a screw construction in which

the distance between threads of a screw increases as one progresses along the length of the screw.

There is no disclosure of suggestion in *Junemann et al.* of the use of such a conveyance screw.

Accordingly, since *Junemann et al.* neither discloses or suggests elements claimed by Applicant, it is respectfully submitted that a rejection under 35 U.S.C. § 102(b) is not supported.

The Examiner has also rejected the claims of the Applicant as anticipated by *Jones et al.* under 35 U.S.C. § 102(b). Similarly, as pointed out above regarding the *Junemann et al.* reference, *Jones et al.* has no teaching or suggestion of the incorporation of pressure differential cellular wheel sluices structured to be pressure proofed up to a pressure burden of at least 11 bars at the entrance and exit of its apparatus.

Conversely, *Jones et al.* Teaches an apparatus for primarily denicotinizing tobacco, having common rotary star valves at its entrance and exit. The *Jones et al.* rotary star valves are effective to operate the *Jones et al.* denicotinizing apparatus at a pressure of 40 p.s.i.g. This is far below the pressure requirements of Applicant's apparatus which incorporates pressure differential cellular wheel sluices structured to be pressure proofed up to a pressure burden of at least 11 bars (approximately 160 p.s.i.g.). Moreover, *Jones et al.* fails to disclose or suggest an apparatus containing a conveyance screw having a progressive pitch as described above.

Accordingly, it is respectfully submitted that since *Jones et al.* neither discloses or suggests elements claimed by Applicant, a rejection under 35 U.S.C. § 102(b) is not supported.

It is therefore submitted that this application is now in condition for allowance and such action is respectfully requested.

The Examiner is requested to call the undersigned attorney if any further issues need to be addressed.

Respectfully submitted,

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PRESSURE-CONDITIONING DEVICE
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